REMARKS

I. Support for Amendments

Support for the amendment to claim 13 may be found, *inter alia*, in the specification at page 66, lines 3-5 and in original claim 13. Accordingly, the amendment is supported by the claims and specification as originally filed, and therefore no new matter has been added.

II. Status of the Claims

Claims 1-9, 11, 13, 14 and 16 are under examination in this Application. Claim 16 is canceled without prejudice. Claim 13 has been amended to replace "controlling the" with "lowering or maintaining a desired level of" and to replace "the control" with "lowering or maintaining." Applicants acknowledge and appreciate the Examiner's indication that claim 4 "would be allowable if rewritten." Office Action at page 9. Applicants respectfully submit that at least this claim is in condition for allowance in view of the following arguments.

Based on the language utilized in the Office Action, it is unclear whether claim 6 is rejected. Additionally, Applicants note that the Examiner rejected claim 8 but did not specify the basis for rejection. Applicants respectfully request clarification in each of these two instances.

Finally, Applicants note that in the Office Action issued September 10, 2003, the Examiner indicated that claims 1-5 and 8 were allowed. Currently, claims 1-3, 5 and 8 are rejected and claim 4 is objected to. Applicants respectfully remind the Examiner that claims noted as allowable should only be subsequently rejected with the exercise of "great care" and that "the examiner should point out in his or her office action that the

claim now being rejected was previously allowed. . . ." *See* M.P.E.P. § 706.04. The Office Action does not address this issue.

III. Rejection Under 35 U.S.C. § 112, First Paragraph: Written Description

The Examiner rejected claims 1-3 and 5 under 35 U.S.C. § 112, first paragraph, as containing subject matter that was not described in the specification in such a way as to reasonably convey to one of ordinary skill in the art that the inventors, at the time the application was filed, had possession of the claimed invention, i.e., lack of written description support for the claimed subject matter in the specification. *See* Office Action at page 3. In the rejection, the Examiner states that although Applicants claim a genus that is generally known to exist in the art, the specification is silent with regard to that which makes up and identifies the claimed genus. Specifically, the Examiner asserts that claims 1-3 and 5 are drawn to natural or synthetic amino acid or oligopeptide residue compounds that, among other things, comprise 2 to 9 amino acids. The Examiner states that Applicants' specification is silent with regard to that which makes up and identifies the claimed synthetic or natural amino acid or oligopeptide residues comprising 2 to 9 amino acids. Applicants respectfully disagree for at least the following reasons.

First, the Federal Circuit has held that the written description requirement of 35 U.S.C. § 112, first paragraph, "may be satisfied through a sufficient description of a representative number of species" of a claimed genus. M.P.E.P § 2163. Furthermore, description of a representative number of species does not require the description to be of such specificity that it would provide individual support for each species that the genus embraces. *Id.* As such, support for the Examiner-cited limitations can be found

in the instant specification at pages 15, line 1 to page 16, line 26, where Applicants present at least 54 non-limiting examples of "amino acids" and "amino acid residues" to which the claimed invention refers. Thus, the disclosure is not "silent with regard to that which makes up and identifies the claimed genus", as stated by the Examiner. Office Action at page 4. Instead, Applicants assert that the limitations cited by the Examiner are adequately supported by the specification.

Second, Applicants respectfully point out that a description as-filed is presumed to be adequate and that the Examiner has the initial burden of presenting evidence or reasoning to explain why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims. M.P.E.P. § 2163.04. Indeed, all that is necessary to satisfy the written description requirement of 35 U.S.C. § 112, first paragraph, is that the specification convey to one skilled in the art that the applicants were in possession of the claimed invention at the time of filing. *See Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997); M.P.E.P. § 2163.02.

On page 4 of the current Office Action, the Examiner calls attention to the fact that "[t]here are no synthetic examples wherein an amino acid or an oligopeptide representative of the genus is linked via an alkylene to the diphenylazetidinones." Applicants respectfully submit that the written description requirement of 35 U.S.C. § 112, first paragraph, does not require working examples. *In re Long*, 368 F.2d 892, 895 (C.C.P.A. 1966) (stating that "[t]he absence of a working example, denominated as such, does not compel the conclusion that a specification does not satisfy the requirements of 35 U.S.C. 112"). Applicants respectfully point the Examiner to pages 16, line 27, to page 17, line 10, of the specification where a general reactive scheme is

described. Given this general example, as well as the non-limiting examples of amino acids and amino acid residues, Applicants assert that sufficient written description has been provided to meet the requirements of 35 U.S.C. § 112.

Thus, for each of these reasons, the rejection under 35 U.S.C. § 112, first paragraph, is improper and should be withdrawn.

IV. Rejection Under 35 U.S.C. § 112, First Paragraph: Enablement

The Examiner rejected claims 9, 11, 13 and 14, under 35 U.S.C. § 112, first paragraph.[1] The rejection states that "the specification does not reasonably provide enablement for treating impaired lipid metabolism, hyperlipidemia, controlling serum cholesterol, [and] treating insulin resistance . . . comprising administering to the host a therapeutically effective amount of a compound of the invention." Office Action at page 5. Specifically, the Examiner asserts that Applicants' specification does not enable one of ordinary skill in the art to make or use the claimed invention by noting (1) the limited amount of direction provided by the inventors in combination with (2) the lack of working examples and (3) the quantity of experimentation needed to make or use the invention based on the content of the disclosure. *Id.* at pages 5-7. Applicants disagree for at least the following reasons.

According to the C.C.P.A., an applicant's specification is presumptively enabled for the full scope of the claims. *In re Marzocchi*, 169 U.S.P.Q. 367, 370 (C.C.P.A. 1971) (emphasis added); *accord*, M.P.E.P. § 2164.04. In fact, "[a]s a matter of Patent Office practice . . . [a specification] must be taken as in compliance with the enabling

[1] Due to the cancellation of claim 16, the § 112, first paragraph, rejection for this claim is moot.

requirement of the first paragraph of § 112 unless there is reason to doubt the objective truth of the statements." *In re Armbruster*, 185 U.S.P.Q. 152, 153 (C.C.P.A. 1975) (emphasis added).

The test of enablement is whether one of ordinary skill in the art could make the invention from the disclosure in the patent coupled with information known in the art without undue experimentation. M.P.E.P. § 2164.01. To determine whether experimentation is undue, the Examiner must apply the eight factors identified in the Federal Circuit's decision in *In re Wands*, 8 U.S.P.Q.2d. 1400, 1404 (Fed. Cir. 1988). M.P.E.P. § 2164.01(a).

The M.P.E.P. specifically states that the Examiner has the initial burden to establish a reasonable basis to question the enablement of the claimed invention. M.P.E.P. § 2164.04. This reasonable basis may be established by the Examiner by "making specific findings of fact, supported by evidence, and then drawing conclusions based on these findings of fact". . . "[h]owever, specific technical reasons are always required." *Id.* (emphasis added). Absent such evidence, the burden does not shift to the Applicants. *In re Marzocchi*, 169 U.S.P.Q. at 369.

In the present case, the Examiner has failed present such evidence and has also failed to indicate that Applicants must disclose more than they have. Instead, the Examiner has provided a general discussion of the aforementioned *Wands* factors which includes broad rationales and support for the current rejections. Office Action at page 5. Accordingly, until the Examiner provides evidence, i.e., specific technical reasons, showing that one of ordinary skill in the art would need more information, a *prima facie* case has not been established. M.P.E.P. § 2164.04.

In his rejection, the Examiner asserts that Applicants have not provided enough guidance to allow a skilled artisan to make and use the present invention. Office Action at pages 6-7. First, the Examiner has failed to provide evidence showing that Applicants' disclosure is insufficient in view of the knowledge of one of ordinary skill in the art. Applicants' generic teaching, coupled with the included examples, provides one of ordinary skill in the art with the necessary direction to apply well-known principles of chemical synthesis to arrive at Applicants' claimed compounds and, subsequently, to derive methods of use for the treatment of impaired lipid metabolism, hyperlipidemia, serum cholesterol and insulin resistance. Indeed, Applicants note that under the law, the scope of enablement is more than what is disclosed in Applicants' specification, it is also the scope of what would be known to one of ordinary skill in the art. *National Recovery Technologies Inc. v. Magnetic Separation Systems Inc.*, 49 U.S.P.Q.2d 1671,1676 (Fed. Cir. 1999). Moreover, in his rejection, the Examiner has acknowledged that the artisans in the field of the invention possess an extremely high level of skill.[2] Therefore, given the rule that what is well-known in the art is best omitted from a specification, coupled with the highly skilled artisans in this field, Applicants' specification likely provides more than what is required for an enabling disclosure. *See* M.P.E.P. §2164.08.

The Examiner also asserts a lack of working examples and guidance in the specification such as would enable one skilled in the art to make and use the methods claimed in claims 9, 11, 13, and 14. Office Action at page 7. Applicants are surprised

[2] "The skilled artisan in this field is that of an MD for therapeutic administration and/or a Ph.D. skilled in the development of therapeutics." Office Action at page 6.

by such an unsupported assertion. Applicants specifically provide working examples on page 63, line 20 through page 66, line 25, that show how diphenylazetidinone compounds may be used in lowering or maintaining a desired level of serum cholesterol in rats and also provide an estimate of human bioabsorption of a claimed compound. Furthermore, pages 8-13 of the present specification provide examples by which the methods claimed in claims 9, 11, 13, and 14 are administered to hosts in combination with additional compounds.

Unquestionably, one of ordinary skill in the art, who has synthesized one of the claimed compounds, could follow the teachings of the specification and the included examples and determine whether the compound is useful in the treatment of impaired lipid metabolism, hyperlipidemia, serum cholesterol or insulin resistance. The fact that the working examples were performed on rats is of no consequence since the present claims discuss methods of treatment of a broader genus of "hosts." Moreover, Applicants respectfully remind the Examiner that the enablement requirement of 35 U.S.C. § 112, first paragraph, does not require working examples. *Atlas Powder Co. v. E.I. Du Pont De Nemours & Co.*, 750 F.2d 1569 (Fed. cir. 1984) (explaining that prophetic examples "does not automatically make a patent non-enabling"); *In re Long*, 368 F.2d 892, 895 (C.C.P.A. 1966) (stating that "[t]he absence of a working example, denominated as such, does not compel the conclusion that a specification does not satisfy the requirements of 35 U.S.C. 112"); and M.P.E.P. § 2164.02 ("[c]ompliance with the enablement requirement of 35 U.S.C. 112, first paragraph, does not turn on whether an example is disclosed. An example may be 'working' or 'prophetic.'").

Indeed, with compounds, such as those claimed in the present invention, the only question becomes the determination of a method that utilizes such compounds in treating the claimed disorders. Applicants assert that the general example of a diphenylazetidinone provided on pages 16, line 27 to 17, line 10, of the specification combined with the additional disclosure in the specification, including the working examples included on pages 63-66, would provide more than sufficient information to enable one skilled in the art to make and/or use the methods claimed in the present invention. Thus, in contrast to the statements on pages 6 and 7 of the Office Action, the present specification provides a large amount of direction by the inventors, as well as numerous examples.

Applicants therefore submit that the Examiner's claim of a (1) limited amount of direction provided by the inventors, (2) lack of working examples and (3) quantity of experimentation needed to make or use the invention based on the content of the disclosure is irrelevant to the determination of whether the present specification, which describes Applicants' claimed invention, meets the enablement requirement of § 112, first paragraph. Accordingly, a proper analysis of the *Wands* factors necessarily leads to the conclusion that the present specification shows how to make and use the claimed invention without undue experimentation, and Applicants respectfully request withdrawal of this rejection under § 112, first paragraph

V. Rejection Under 35 U.S.C. § 112, Second Paragraph

Claims 7 and 13 have been rejected under 35 U.S.C. § 112, second paragraph, for allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. *See* Office Action at page 8.

During examination of claims for compliance with the definiteness requirement of 35 U.S.C. § 112, second paragraph, the Examiner shall focus on "whether the claim meets the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available." M.P.E.P. § 2173.02 (emphasis added). Further, the Examiner shall "allow claims which define the patentable subject matter with a reasonable degree of particularity and distinctness." *Id.* (emphasis original). Therefore, if the language of the claims can reasonably apprise one of ordinary skill in the art of the scope of the claimed invention, any rejection under 35 U.S.C. § 112, second paragraph is improper. *See id.*, §2173.05(b).

In rejecting claim 7, the Examiner requests clarification of the term "affect." Specifically, the Examiner wishes to know whether "affect" is construed to mean an increase, decrease, or both. Although the Examiner cites specific examples in the instant specification that appear to indicate that "affect" implies a decrease, the term "affect" is defined as "hav[ing] an influence on or effect a change in." THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE, (4th ed. 2000). In this definition, there is no direct or indirect mention of "affect" indicating either an increase or a decrease, as specified by the Examiner.

In the present specification, the examples cited by the Examiner simply represent exemplary embodiments of the invention, and as a result should not be interpreted as limiting the scope of the term "affect." Applicants respectfully submit that reciting the scope of the term "affect" in the claims is not needed to determine the scope of the claimed term; rather, one skilled in the art, armed with the teachings of the present specification and the prior art, could readily determine whether "affect" signifies an

increase or a decrease in a given practical situation. Accordingly, the scope of the claims is clear, and Applicants see no legal basis that would warrant altering the scope of protection sought by the pending claim.

In rejecting claim 13, the Examiner reveals that "[s]ince the term 'controlling' encompasses both an increase and/or a decrease of cholesterol . . ., it is not clear what applicant intends said term to mean." Office Action at page 8. The Examiner also indicates that "[i]t is not clear what 'need of control' means." *Id.* As with the term "affect", discussed above, Applicants assert that, when read in light of the prior art and the specification, especially at page 66, lines 3-5, one of ordinary skill in the art would easily comprehend this regular claim language as being definite and that reciting the scope of the terms "controlling" or "need of control" in the claims is not needed to determine the scope of the claimed terms.

Nevertheless, in the interest of advancing prosecution, claim 13 has been amended to replace the rejected terms "controlling" and "need of control" with the phrases "lowering or maintaining a desired level of" and "lowering or maintaining", respectively. Support for this amendment may be found, for example, on page 9, line 8; page 13, line 17-20; and on pages 63-66.

Applicants therefore respectfully request that the rejections under 35 U.S.C. § 112, second paragraph, be withdrawn.

VI. Claim Objection

Applicants respectfully submit that the objection to claim 4 set forth on page 9 of the Office Action has been rendered moot by the preceding arguments.

VII. Conclusion

In view of the foregoing amendments and remarks, Applicants' respectfully request reconsideration and reexamination of the application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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